IN THE CLAIMS

Claims 1-34 remain in the application, unamended by this paper. They are provided herein for your convenience and consideration.

1.   A method of conducting data compression, comprising:

receiving multiple input data blocks for storage in a data storage subsystem;

applying a predetermined compression process to the data blocks;

evaluating application of the predetermined compression process according to a predetermined compression criteria; and

if the compression fails to satisfy the predetermined compression criteria, ceasing compression for subsequent data blocks.

2.   The method of claim 1, the predetermined compression process being performed individually on each of the received data blocks, the evaluating of application of the predetermined compression process according to a predetermined compression criteria comprising:

selecting a group of the received data blocks in accordance with a predetermined selection criteria;

for each data block in the selected group, determining a compression ratio between (1) the data block's size after application of the predetermined compression process, and (2) the data block's size prior to application of the predetermined compression process, and

for the selected group of received data blocks, determining how many data blocks have a compression ratio greater than a first threshold; and

13   if the number of data blocks having a compression ratio greater than the first
14   threshold exceeds a second threshold, the compression satisfying the
15   predetermined compression criteria.

1   3.   The method of claim 2, the selection of a group of the received data blocks in

2   accordance with a predetermined selection criteria comprising selection of data blocks in a

3   fixed window.

1   4.   The method of claim 2, the selection of a group of the received data blocks in

2   accordance with a predetermined selection criteria comprising selection of data blocks in a

3   running window.

1   5.   The method of claim 1, the evaluating of application of the predetermined

2   compression process according to a predetermined compression criteria comprising:

3   selecting a group of received data blocks in accordance with a predetermined

4   selection criteria;

5   for all received data blocks in the selected group, determining an aggregate

6   compression ratio between (1) the aggregate size of the data blocks after

7   application of the predetermined compression process, and (2) the aggregate

8   size of the data blocks prior to application of the predetermined compression

9   process, and

10   determining whether the aggregate compression ratio exceeds a first threshold; and

11   if the aggregate compression ratio exceeds the first threshold, the compression

12   satisfying the predetermined compression criteria.

1   6.   The method of claim 5, the selection of a group of the received data blocks in
2   accordance with a predetermined selection criteria comprising selection of data blocks in a
3   fixed window.

1   7.   The method of claim 5, the selection of a group of the received data blocks in
2   accordance with a predetermined selection criteria comprising selection of data blocks in a
3   running window.

1   8.   The method of claim 1, wherein:
2   the predetermined compression process is performed individually on each of the
3   received data blocks; and
4   the cessation of compression comprises ceasing compression until satisfaction of a
5   predetermined skip criteria, and then resuming application of the
6   predetermined compression process.

1   9.   The method of claim 8, predetermined skip criteria comprising expiration of
2   predetermined time.

1   10.   The method of claim 9, the cessation of application of the predetermined compression
2   process further comprising:
3   storing uncompressed data items received during cessation of compression.

1   11.   The method of claim 9, predetermined skip criteria comprising storage of a
2   predetermined number of uncompressed data items.

1   12.   A programmed product comprising signal-bearing media tangibly embodying a

2   program of machine-readable instructions executable by a digital processing apparatus to

3   perform a method for conducting data compression, said method comprising:

4   receiving multiple records for storage in a data storage subsystem;

5   compressing at least one of the data records;

6   evaluating the compression performance according to a predetermined compression

7   criteria; and

8   if the compression fails to satisfy the predetermined compression criteria,

9   terminating compression of subsequent data records.

1   13.   The product of claim 12, the compressing being performed individually on each of

2   the received data records, the evaluating of the compression performance according to a

3   predetermined compression criteria comprising:

4   selecting a group of the received data records in accordance with a predetermined

5   selection criteria;

6   for each data record in the selected group, determining a compression ratio between

7   (1) the data record's size after compressing, and (2) the data record's size prior

8   to compressing, and

9   for the selected group of received data records, determining how many data records

10   have a compression ratio greater than a first threshold; and

11   if the number of data records having a compression ratio greater than the first

12   threshold exceeds a second threshold, the compression performance

13   satisfying the predetermined compression criteria.

14.   The product of claim 13, the selection of a group of the received data records in accordance with a predetermined selection criteria comprising selection of data records in a fixed window.

15.   The product of claim 13, the selection of a group of the received data records in accordance with a predetermined selection criteria comprises selection of data records in a running window.

16.   The product of claim 12, the evaluating of compression performance according to a predetermined compression criteria comprising:
        selecting a group of received data records in accordance with a predetermined selection criteria;
        for all received data records in the selected group, determining an aggregate compression ratio between (1) the aggregate size of the data records after compressing, and (2) the aggregate size of the data records prior to compressing, and
        determining whether the aggregate compression ratio exceeds a first threshold; and
        if the aggregate compression ratio exceeds the first threshold, the compression performance satisfying the predetermined compression criteria.

17.   The product of claim 16, the selection of a group of the received data records in accordance with a predetermined selection criteria comprising selection of data records in a fixed window.

1   18.   The product of claim 16, the selection of a group of the received data records in

2   accordance with a predetermined selection criteria comprising selection of data records in

3   a running window.

1   19.   The product of claim 12, wherein:

2   the compression is performed individually on each of the received data records; and

3   the termination of compression for subsequent data records comprises terminating

4   compression until satisfaction of a predetermined skip criteria, and then

5   resuming compression for subsequent data records.

1   20.   The product of claim 19, predetermined skip criteria comprising expiration of a

2   predetermined time.

1   21.   The product of claim 20, the termination of compression for subsequent data records

2   further comprising:

3   storing uncompressed data records received during termination of compression.

1   22.   The product of claim 20, the resumption of compression after satisfaction of a

2   predetermined skip criteria comprising:

3   resuming compression of subsequent data records after storage of a predetermined

4   number of uncompressed data records.

1   23.   A data storage subsystem, comprising:

2   a storage unit to store digital data blocks;

3   a storage controller, coupled to the storage unit, and programmed to conduct a data

4   compression process, the process comprising:

5   receiving multiple input data blocks for storage in a data storage subsystem;

6   applying a predetermined compression process to the data blocks;

7   evaluating application of the predetermined compression process according

8   to user adjustable and programmable compression criteria; and

9   if the compression fails to satisfy the predetermined compression criteria,

10   ceasing compression of future data blocks.

1   24.   The subsystem of claim 23, the predetermined compression process being performed

2   individually on each of the received data blocks, the evaluating of application of the

3   predetermined compression process according to a predetermined compression criteria

4   comprising:

5   selecting a group of the received data blocks in accordance with a predetermined

6   selection criteria;

7   for each data blocks in the select group, determining a compression ratio between (1)

8   the data block's size after application of the predetermined compression

9   process, and (2) the data block's size prior to application of the predetermined

10   compression process, and

11   for the selected group of received data blocks, determining how many data blocks

12   have a compression ratio greater than a first threshold; and

13   if the number of data blocks having a compression ratio greater than the first

14   threshold exceeds a second threshold, the compression satisfying the user

15   adjustable and programmable compression criteria.

1 25. The subsystem of claim 24, the selection of a group of the received data blocks in

2 accordance with a predetermined selection criteria comprising selection of data blocks in a

3 fixed window.

1 26. The subsystem of claim 24, the selection of a group of the received data blocks in

2 accordance with a predetermined selection criteria comprising selection of data blocks in a

3 running window.

1 27. The subsystem of claim 23, the evaluating of application of the predetermined

2 compression process according to a predetermined compression criteria comprising:

3   selecting a group of received data blocks in accordance with a predetermined

4   selection criteria;

5   for all received data blocks in the selected group, determining an aggregate

6   compression ratio between (1) the aggregate size of the data blocks after

7   application of the predetermined compression process, and (2) the aggregate

8   size of the data blocks prior to application of the predetermined compression

9   process, and

10   determining whether the aggregate compression ratio exceeds a first threshold; and

11   if the aggregate compression ratio exceeds the first threshold, the compression

12   satisfying the user adjustable and programmable compression criteria.

28. The subsystem of claim 27, the selection of a group of the received data blocks in accordance with a predetermined selection criteria comprising selection of data blocks in a fixed window.

29. The subsystem of claim 27, the selection of a group of the received data blocks in accordance with a predetermined selection criteria comprising selection of data blocks in a running window.

30. The subsystem of claim 23, wherein:
 the predetermined compression process is performed individually on each of the received data blocks; and
 the cessation of compression comprises ceasing compression until satisfaction of a predetermined skip criteria, and then resuming application of the predetermined compression process.

31. The subsystem of claim 30, predetermined skip criteria comprising expiration of a predetermined time.

32. The subsystem of claim 31, the termination of application of the predetermined compression process further comprising:
 storing uncompressed data items received during cessation of compression.

33. The subsystem of claim 31, the resumption of application of the predetermined compression process after satisfaction of a predetermined skip criteria comprising:
 resuming application of the predetermined compression process after storage of a predetermined number of uncompressed data items.

1   34.   A data storage subsystem, comprising:

2   storage means to store digital data blocks;

3   storage controller means, coupled to the storage unit, for conducting data

4   compression process by:

5   receiving multiple input data blocks for storage in a data storage subsystem;

6   applying a predetermined compression process to the data blocks;

7   evaluating application of the predetermined compression process according

8   to a predetermined compression criteria;

9   if the compression fails to satisfy the predetermined compression criteria,

10   ceasing compression of subsequent data blocks;

11   wherein the predetermined compression process is performed individually to

12   each of the received data blocks, and the evaluating of application of

13   the predetermined compression process according to a predetermined

14   compression criteria comprises:

15   selecting a group of the received data blocks in accordance with a

16   predetermined selection criteria;

17   for each data block in the selected group, determining a compression ratio

18   between (1) the data block's size after application of the

19   predetermined compression process, and (2) the data block's size

20   prior to application of the predetermined compression process;

21   for the selected group of received data blocks, determining how many data

22   blocks have a compression ratio greater than a first threshold; and

23   if the number of data blocks having a compression ratio greater than the first

24   threshold exceeds a second threshold, the compression satisfying the

                                predetermined compression criteria.